

Inventor: John C. Reed
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- Group I: Claims 1-9, 11, 18, 27-29 and 38, drawn to NAC-encoding nucleic acids or functional fragments, vectors, host cells, oligonucleotides and related methods;
- Group II: Claims 12-17, 40, 41 and 52, drawn to NAC proteins and related compositions and methods;
- Group III: Claims 19-22, 40-43 and 52-54, drawn to anti-NAC antibodies and methods of use;
- Group IV: Claims 10, 23 and 39, drawn to antisense-nucleic acids and related compositions and methods;
- Group V: Claims 24-26, drawn to transgenic non-human animals;
- Group VI: Claim 30, drawn to a method of modulating the activity of an oncogenic protein using NAC;
- Group VII: Claims 31-37, 40, 41, and 48-52, drawn to methods of identifying agents that alter NAC association with a NAC associated protein (NAP);
- Group VIII: Claims 42-44, drawn to methods of using an agent that binds NAC or alters NAC activity;

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Group IX: Claims 45 and 47, drawn to a chimeric protein of NAC;

Group X: Claim 46, drawn to a protein with a TIM-barrel-like domain;

Group XI: Claim 55, drawn to an agent that binds a nucleotide binding site of NAC;

Group XII: Claims 56-60, drawn to an agent that modulates NAC association with caspases; and

Group XIII: Claims 61-65, drawn to agent that modulates NAC association with a CED-4 family protein.

Applicants elect with traverse the invention of Group I, claims 1-9, 11, 18, 27-29 and 38, for prosecution on the merits. Applicant reserves the right to pursue prosecution of non-elected claims in a later filed application claiming the benefit of priority of the above-identified application.

Applicants respectfully traverse the restriction requirement for the reasons that follow, and request that the claims of Group II and Group X be rejoined into a single Group; that the claims of Groups VII and VIII be rejoined into a single Group; and that the claims of Groups XI and XIII be rejoined into a single Group. The criteria for a proper restriction requirement are that (1) the inventions must be independent or

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distinct as claimed; and (2) there must be a serious burden on the Examiner if restriction is not otherwise required (MPEP § 803).

Applicants respectfully submit that the restricted claims are sufficiently inter-related that a search of the Group X claim would substantially encompass claims within Group II. For example, a search of a protein comprising a TIM-Barrel-like domain and a domain selected from a CARD domain, a NB-ARC domain and a LRR domain (claim 46) would substantially encompass the search of a protein comprising a NB-ARC domain, a CARD domain and a TIM-Barrel-like domain (claim 12), or additionally a LRR domain (claim 13), in addition to proteins containing or encoded by the recited sequences (claims 14-17). Moreover, a search of the sequences of Group II would necessarily reveal sequences comprising domains such as TIM-Barrel-like domain, NB-ARC domain, CARD domain and LRR domain. Therefore, a search of the above groups together would not present an undue burden to the Examiner.

Similarly, a search of claims of Group VII would substantially overlap a search of claims of Group VIII. For example, a search of a method for modulating an activity mediated by a NAC protein by contacting the NAC protein with an agent (claim 37) would encompass a search for a method of modulating the level of apoptosis in a cell by contacting a cell with an agent that alters the association of NAC with a NAC-associated-protein or alters the activity of a NAC in the cell (claim 44). Therefore, a search of claims of Group VII would include a search

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of claims of Group VIII, and thus, would not present an undue burden to the Examiner.

Furthermore, a search of the claims of Group XIII would substantially encompass a search of claim of Group XI. As disclosed in the specification, NAC nucleotide binding and hydrolysis activities typically are required for association with other NB-ARC-containing proteins, such as CED-4 family proteins (page 14, lines 22-26. Therefore, a search for an agent that modulates NAC or CARD-X association with a CED-4 family protein will encompass a search for an agent that binds and modulates a nucleotide binding site of NAC. Moreover, a search for an agent that binds and modulates a nucleotide binding site of NAC would reveal agents that modulate NAC association with a CED-4 family protein. Therefore, a search of the above groups together would not present an undue burden to the Examiner.

Accordingly, Applicants respectfully request that the Examiner reconsider the restriction requirement and rejoin the claims of Groups II and X; Groups VII and VIII; and Groups XI and XIII single Groups.

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CONCLUSION

The Examiner is invited to call the undersigned attorney or Cathryn Campbell if there are any questions related to this application.

Respectfully submitted,

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